

January 2005

# MILITARY BASE CLOSURES

## Updated Status of Prior Base Realignments and Closures



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Report Documentation Page				Form Approved OMB No. 0704-0188	
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1. REPORT DATE <b>JAN 2005</b>		2. REPORT TYPE		3. DATES COVERED -	
4. TITLE AND SUBTITLE <b>Military Base Closures. Updated Status of Prior Base Realignments and Closures.</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>U.S. Government Accountability Office (GAO),441 G Street NW ,Washington,DC,20548</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>The original document contains color images.</b>					
14. ABSTRACT <b>see report</b>					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES <b>55</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			



Highlights of [GAO-05-138](#), a report to congressional committees

## Why GAO Did This Study

As the Department of Defense (DOD) prepares for the 2005 base realignment and closure (BRAC) round, questions continue to be raised about the transfer and environmental cleanup of unneeded property arising from the prior four BRAC rounds and their impact on cost and savings and on local economies.

This report, which is being issued to the defense authorization committees that have oversight responsibility over defense infrastructure, describes DOD's progress in implementing prior BRAC postclosure actions. It addresses (1) the transfer of unneeded base property to other users, (2) the magnitude of the net savings accruing from the prior rounds, (3) estimated costs for environmental cleanup of BRAC property, and (4) the economic recovery of communities affected by base closures.

## What GAO Recommends

Although GAO is making no recommendations in this report, it believes its prior recommendation on the need for a DOD-wide systematic approach for updating savings estimates for the 2005 round, along with an oversight mechanism to ensure that updates are accomplished, remains valid.

DOD provided technical comments on a draft of this report and concurred with the need to improve accounting for savings from the 2005 BRAC round.

[www.gao.gov/cgi-bin/getrpt?GAO-05-138](http://www.gao.gov/cgi-bin/getrpt?GAO-05-138).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Barry W. Holman at (202) 512-8412 or [holmanb@gao.gov](mailto:holmanb@gao.gov).

# MILITARY BASE CLOSURES

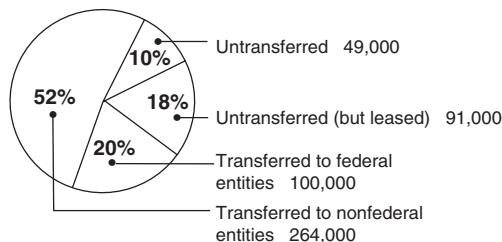
## Updated Status of Prior Base Realignments and Closures

### What GAO Found

As of September 30, 2004, DOD had transferred about 72 percent of 504,000 acres of unneeded BRAC property to other entities. This amount represents an increase over the 42 percent that GAO previously reported in April 2002 and is primarily attributable to two large property transfers. When leased acreage is added to the transferred property, the amount of unneeded BRAC property in reuse rises to 90 percent. Transfer of the remaining acreage has been delayed primarily because of environmental cleanup requirements.

#### Disposition of Unneeded BRAC Acreage

Total acreage = 504,000



Source: GAO's analysis of DOD data.

DOD data show that the department had generated an estimated \$28.9 billion in net savings or cost avoidances from the prior BRAC rounds through fiscal year 2003 and expects to save about \$7 billion each year thereafter. These savings reflect money that DOD would likely have spent to operate military bases had they remained open. Although the savings are substantial, GAO found that the estimates are imprecise because the military services have not updated them regularly despite GAO's prior reported concerns on this issue. This issue needs to be addressed in the 2005 round. Further, the estimates do not reflect all BRAC-related costs, such as \$1.9 billion incurred by DOD and other federal agencies for redevelopment assistance.

While estimated costs for environmental cleanup at BRAC sites remain within the range of prior estimates, these costs may increase if unknown or undetermined future cleanup liabilities, such as additional unexploded ordnance or other harmful contaminants, emerge. Through fiscal year 2003, DOD had spent about \$8.3 billion on BRAC environmental cleanup. It expects to spend another \$3.6 billion to complete the cleanup work.

While most nearby communities have recovered or continue to recover from base closures, they, as well as other communities, have felt some impact from the recent economic downturn where the strength of the national, regional, or local economy can affect recovery efforts. Yet, key economic indicators—unemployment rates and average annual real per capita income growth rates—show that BRAC communities are generally faring well when compared with average U.S. rates. Of 62 communities that GAO studied, 69 percent had unemployment rates equal to or lower than the U.S. average and 48 percent had income growth rates higher than the national average.

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## Abbreviations

BRAC	base realignment and closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DERP	Defense Environmental Restoration Program
DOD	Department of Defense
MEC	munitions and explosives of concern
USARSO	U.S. Army South
USFWS	U.S. Fish and Wildlife Service
UXO	unexploded ordnance

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**United States Government Accountability Office**  
**Washington, DC 20548**

January 13, 2005

The Honorable John W. Warner  
Chairman  
The Honorable Carl Levin  
Ranking Minority Member  
Committee on Armed Services  
United States Senate

The Honorable Duncan L. Hunter  
Chairman  
The Honorable Ike Skelton  
Ranking Minority Member  
Committee on Armed Services  
House of Representatives

While the Department of Defense (DOD) is currently preparing for the 2005 base realignment and closure (BRAC) round, it continues its work on completing actions, such as the environmental cleanup and transfer of unneeded property, arising from the base realignments and closures from the 1988, 1991, 1993, and 1995 rounds. By the end of the 6-year implementation period<sup>1</sup> of the last round in fiscal year 2001, the department had significantly reduced its domestic infrastructure through the realignment and closure of hundreds of bases in these rounds and had reportedly generated billions in net savings or cost avoidances during the process. Although these closure and realignment actions have been completed, DOD continues the process of cleaning up environmentally contaminated former base sites and transferring unneeded property to other users; questions continue to be raised concerning progress with these actions as well as cost and savings estimates for these rounds. At the same time, the communities surrounding the former defense bases have often faced long-term challenges in the economic recovery process arising out of these prior closure rounds.

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<sup>1</sup> The implementation period is the time allotted (6 years for the 1991, 1993, and 1995 rounds) for actual base realignments or closures following approval of such recommended actions. Actions related to disposing of BRAC properties, such as environmental cleanup and transfer of properties determined to be surplus to DOD needs, can extend beyond that time.

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This report is the third in a series of reports that details the progress DOD has made in implementing the closures and realignments in the prior BRAC rounds. We performed our work on the basis of the authority of the Comptroller General to evaluate U.S. governmental programs<sup>2</sup> and are reporting the results to you because of your oversight role of DOD's infrastructure and the BRAC initiative. In our last update in 2002,<sup>3</sup> we concluded that most former unneeded base properties had not yet been transferred to other users, the closure process was generating substantial savings (although the savings estimates were imprecise), the total expected environmental cleanup costs were still within range of the cost estimates made in 1996, and most communities surrounding closed bases were faring well economically in relation to key national economic indicators. In this report we updated those findings by addressing (1) DOD's progress in transferring unneeded base property to other users, (2) the magnitude of the estimated net savings accruing from the prior four BRAC rounds, (3) DOD's costs to date and estimated future costs for environmental cleanup on former base property, and (4) the economic recovery of communities affected by base closures.

To update this information, we compared recent data on overall property transfers, BRAC costs and savings, environmental cleanup costs, and key economic indicators for BRAC-affected communities with previously reported data. In performing our work, we also interviewed DOD and military service officials to clarify issues and obtain additional documentation. We determined that the data we received from DOD and other government agencies were sufficiently reliable for meeting our reporting objectives. We conducted our work between November 2003 and October 2004 in accordance with generally accepted government auditing standards. Further details on the scope and methodology are described in appendix I.

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<sup>2</sup> 31 U.S.C. § 7.17.

<sup>3</sup> GAO, *Military Base Closures: Progress in Completing Actions from Prior Realignments and Closures*, [GAO-02-433](#) (Washington, D.C.: Apr. 5, 2002).



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## Results in Brief

As of September 30, 2004, DOD data show that about 72 percent (about 364,000 acres) of the approximately 504,000 acres of unneeded BRAC property from the prior four rounds had been transferred to other federal and nonfederal entities,<sup>4</sup> representing an increase over the 42 percent transfer rate that we reported in April 2002. The increase is primarily attributable to large property transfers at two bases. When leased acreage is added to property that has already been transferred, the amount of unneeded BRAC property that is in reuse rises to 90 percent. However, leased property is not permanently transferred, and many parcels have pending cleanup actions or other issues to resolve before permanent transfer can take place. About 140,000 acres have not yet been transferred, primarily because of delays resulting from environmental cleanup requirements, which DOD is obligated to address to assure that former base property is cleaned up to a level safe for its intended reuse. The military is working closely with communities impacted by BRAC to expedite the transfer and reuse of the remaining unneeded former base property.

Based on our analysis of DOD data, the department had generated substantial net estimated savings (estimated total savings minus costs) of about \$28.9 billion through fiscal year 2003 from the prior four closure rounds, and it expects to save about \$7 billion annually thereafter. Our work has shown that these savings actually reflect cost avoidances, that is, money that DOD would likely have needed to operate BRAC bases had they remained open. At the same time, our reviews have found that the savings estimates are imprecise and are rough approximations of the likely savings, in part because the military services have not regularly updated their estimates over time and because DOD's accounting systems are not oriented toward identifying and tracking savings. Because the implementation of BRAC actions may vary from the original plans, we expressed concern in prior reports regarding the need for periodically updating savings estimates to provide more accurate reports for DOD and congressional decision makers. In addition, imprecision exists because some costs associated with BRAC, including about \$1.9 billion incurred by DOD and other federal agencies for redevelopment assistance, are not reflected in the savings estimates while some other costs attributed to BRAC, such as environmental cleanup, may have occurred had the bases remained open.

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<sup>4</sup> In this report, "transferred property" refers to property that has been deeded to another user; it does not include leased property.

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While estimated environmental cleanup costs at BRAC sites have not changed significantly from prior reported estimates, they are still subject to some fluctuations because of unknown or undetermined future cleanup liabilities or improved cleanup techniques. According to DOD data, the department had spent about \$8.3 billion on environmental cleanup at BRAC sites through fiscal year 2003, and it estimates spending an additional \$3.6 billion to complete its cleanup work in future years, for an overall estimated total of \$11.9 billion. The estimated liability for fiscal year 2004 and beyond is about \$1 billion less than DOD previously projected for fiscal year 2003 and beyond. The decrease is attributable primarily to DOD spending about \$761 million in fiscal year 2003 for environmental cleanup and further refinement of estimates at various BRAC locations.

While some communities surrounding closed bases are faring better than others, most have recovered or are continuing to recover from the impact of BRAC, with more mixed results recently, allowing for some negative impact from the economic downturn nationwide in recent years. DOD data show that almost 72 percent of local DOD civilian jobs that were lost on bases as a result of realignments and closures have been replaced. Two key economic indicators—the unemployment rate and the average annual real per capita income growth rate—show that BRAC communities are generally doing well when compared with average U.S. rates. Unemployment rates for BRAC-affected communities have consistently compared favorably with the national average since the first round in 1988. Since 2002, given the economic downturn nationwide, almost all of the 62 communities we reviewed experienced increased unemployment, although 69 percent had average unemployment rates equal to or lower than the U.S. rate, as compared to 71 percent in 2002. Just under half (48 percent) of these communities had average real per capita income growth rates higher than the U.S. rate for the reporting period 1999-2001. For the reporting period 1996-1999 discussed in our last report, just over half (53 percent) had growth rates higher than the national average. Still, as compared to 2002, the per capita income growth rates decreased for almost 75 percent of all BRAC-affected communities. As we have reported in the past, the recovery process has not necessarily been easy with the strength of the national, regional, and local economies having a significant bearing on the recovery of any particular community facing a BRAC closure.

Although we are making no recommendations in this report, we believe that our prior recommendation in April 2002 regarding the need for a DOD-wide systematic approach for the periodic updating of savings

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estimates for the 2005 round, along with an oversight mechanism to ensure these updates are accomplished, remains valid. While DOD has stated its intent to do so, it has not developed such an approach to date. In commenting on a draft of this report, DOD concurred with the need to improve the department's procedures for accounting for savings from the 2005 BRAC round.

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## Background

To enable DOD to close unneeded bases and realign others, Congress enacted legislation that instituted BRAC rounds in 1988, 1991, 1993, and 1995.<sup>5</sup> A special commission established for the 1988 round made realignment and closure recommendations to the Senate and House Committees on Armed Services. For the 1991, 1993, and 1995 rounds, special BRAC Commissions were set up, as required by legislation, to make specific recommendations to the President, who in turn sent the commissions' recommendations and his approval to Congress. The four commissions generated 499 recommendations—97 major closures and hundreds of smaller base realignments, closures, and other actions.<sup>6</sup> Of the 499 recommendations, 451 required action; the other 48 were modified in some way by a later commission. DOD was required to complete BRAC realignment and closure actions for the 1988 round by September 30, 1995, and for the 1991, 1993, and 1995 rounds within 6 years from the date the President forwarded the recommended actions to Congress. DOD reported that as of September 30, 2001, it had taken all necessary actions to implement the recommendations of the BRAC Commissions for the

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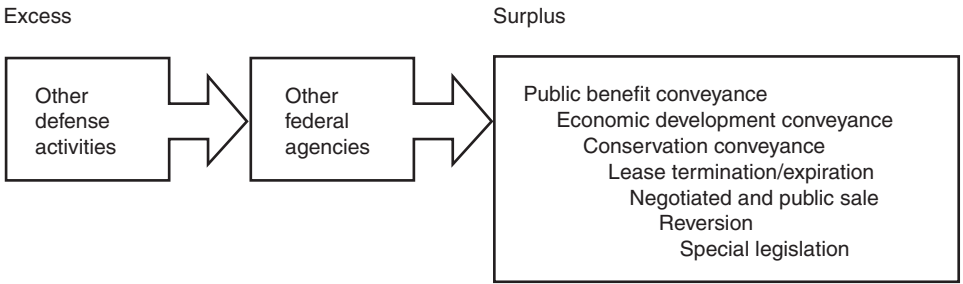
<sup>5</sup> The 1988 round was completed under the Defense Authorization Amendments and Base Closure and Realignment Act (P.L. 100-526, Title II, Oct. 24, 1988, as amended). The last three rounds were completed under the Defense Base Closure and Realignment Act of 1990 (P.L. 101-510, Title XXIX, Nov. 5, 1990, as amended).

<sup>6</sup> The number of recommendations may vary depending on how they are categorized. In this report, the recommendations include closures, realignments, disestablishments, relocations, and redirections. In a closure, all missions that are carried out at a base either cease or relocate, while in a realignment, a base remains open but loses and sometimes gains missions. "Disestablishments" and "relocations" refer to missions; those disestablished cease operations, while those relocated are moved to another base. "Redirections" refer to cases in which a BRAC Commission changes the recommendation of a previous commission.

four rounds.<sup>7</sup> As a result, DOD estimated that it had reduced its domestic infrastructure by about 20 percent.

While DOD has closed or realigned bases as recommended by the various BRAC Commissions, other actions, such as the cleanup of environmentally contaminated property and the subsequent transfer of unneeded property to other users, were allowed to continue beyond the 6-year implementation period for each round. Once DOD no longer needs BRAC property, the property is considered excess and is offered to other federal agencies. As shown in figure 1, any property that is not taken by other federal agencies is then considered surplus and is disposed of through a variety of means to state and local governments, local redevelopment authorities,<sup>8</sup> or private parties.

**Figure 1: DOD’s Usual Procedures for Transferring Property**



Source: GAO.

The various methods as noted in figure 1 to convey unneeded property to parties external to the U.S. government are targeted, in many cases, to a particular end-use for the property. For example, under a public benefit conveyance, state and local governments and local redevelopment authorities acquire surplus DOD property for such purposes as schools,

<sup>7</sup> The 1995 BRAC round recommendation to close family housing units on Fort Buchanan, Puerto Rico, was not implemented because DOD’s Appropriations Act for Fiscal Year 1999 (P.L. 105-262) authorized the Secretary of Defense to retain all or a portion of the units in support of the U.S. Army South’s (USARSO) relocation from Panama to Fort Buchanan. On September 30, 2003, USARSO officially completed a further restationing from Puerto Rico to Texas.

<sup>8</sup> A local redevelopment authority is any authority or instrumentality established by a state or local government and recognized by the Secretary of Defense, through the Office of Economic Adjustment, as the entity responsible for developing the redevelopment plan with respect to an installation or for directing implementation of the (land reuse) plan.

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parks, and airports for little or no cost. Under an economic development conveyance, property is transferred for uses that promote economic recovery and job creation. Conservation conveyances, which were recently introduced in the Bob Stump National Defense Authorization Act for Fiscal Year 2003,<sup>9</sup> provide for the transfer of property to qualified not-for-profit groups for natural resource and conservation purposes. Property can, in other cases, also be conveyed to nonfederal parties through the other cited methods as shown in figure 1 without regard, in many cases, to a particular end-use. Property can, for example, be sold or special congressional legislation can dictate transfer to a particular entity.

In the early years of BRAC, DOD was projecting higher revenue from land sales than it subsequently experienced. DOD had originally projected about \$4.7 billion in revenue from such sales for the four closure rounds; however, according to the fiscal year 2005 budget, total land sales and related revenue were about \$595 million for those rounds. The decrease in expected sales is attributable primarily to national policy changes and legislation that emphasize assisting communities that are losing bases. Nonetheless, in recent years the Navy has expressed a renewed interest in the sale of BRAC property with the sale of some unneeded property at the former Tustin Marine Corps Air Station in California for \$208.5 million. Moreover, the Navy has also indicated that it intends to sell portions of the former Naval Station Roosevelt Roads<sup>10</sup> in Puerto Rico. To what extent sales will play more of a role in disposing of unneeded property arising from the 2005 BRAC round remains to be seen.

Reducing excess infrastructure and generating savings for the department were the key reasons for conducting the prior BRAC rounds. The net savings for implementing BRAC actions are arrived at by deducting the costs necessary to implement those actions from the estimated savings generated by the resulting reduction in excess infrastructure. These savings are most often cost avoidances—costs that DOD might have incurred if BRAC actions had not taken place. Some of the savings are one-time (e.g., canceled military construction projects), but most often represent an avoidance of recurring spending (e.g., personnel reductions). In this respect, eliminating or reducing recurring base support

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<sup>9</sup> P.L. 107-314, § 2811, 2812 (Dec. 2, 2002).

<sup>10</sup> While Naval Station Roosevelt Roads was closed under special legislation (P.L. 108-87 § 8132 (Sept. 30, 2003)) rather than under the prior BRAC rounds, the legislation directed that the disposal of the property follow the BRAC property disposal process.

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(e.g., physical security, fire protection, utilities, property maintenance, accounting, payroll, and a variety of other services) costs at closed and realigned bases is a major component of BRAC savings. The value of these recurring savings has become the largest and most important portion of BRAC's overall estimated savings.

DOD must comply with cleanup standards and processes under applicable laws, regulations, and executive orders in conducting assessments and cleanup of its unneeded base property. The time needed to accomplish cleanup activities can extend many years beyond the 6 years allowed under BRAC legislation for ceasing military operations and closing bases. The status of cleanup efforts can also affect the transfer of title from DOD to other users. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA<sup>11</sup>) provides the framework for responding to most contamination problems resulting from hazardous waste disposal practices, leaks, spills, or other activity that has created a public health or environmental risk. DOD performs its cleanups in coordination with regulatory agencies and, as appropriate, with other potentially responsible parties, including current property owners. While CERCLA had originally authorized property transfers only after cleanup actions had been taken, the act was amended in 1996<sup>12</sup> to expedite transfer of contaminated property under certain conditions under a so-called early transfer authority. While use of this authority does allow for the possible concurrent cleanup and reuse of the property, the requirement remains that contaminated sites must be cleaned up to ensure that transferred BRAC property is not harmful to human health or the environment and that it can support new use.

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## Prior GAO Reports Have Addressed BRAC Issues

We have reported on base closure issues from the prior BRAC rounds on several occasions (see app. VI). Although some of our reports have focused on concerns about implementation actions at a specific location, in December 1998 and April 2002 we issued two broader BRAC status reports addressing DOD-wide closure issues.<sup>13</sup> These reports discussed the magnitude and precision of cost and savings estimates, the progress of

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<sup>11</sup> 42 U.S.C. § 9601 et. seq.

<sup>12</sup> 42 U.S.C. § 9620(h)(3)(c).

<sup>13</sup> [GAO-02-433](#) and GAO, *Military Bases: Status of Prior Base Realignment and Closure Rounds*, [GAO/NSIAD-99-36](#) (Washington, D.C.: Dec. 11, 1998).

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environmental cleanup and property transfer, and the impact on communities and their recovery. We also issued reports in July and August 2001 that updated closure-related implementation data and reaffirmed the primary results of our prior work.<sup>14</sup> A brief summary of these reports is as follows:

- In our December 1998 report, we concluded that BRAC actions were on track. Cost and savings estimates were substantial but not precise because the services had not routinely updated their savings estimates, as they had their cost estimates. Environmental cleanup was progressing, but it was costly and time consuming. Property disposal was progressing slowly because of factors that were not completely under DOD's control and that were difficult to manage, such as identifying recipients for the property and associated transfer planning and addressing environmental concerns. Most communities where bases had closed were recovering, and a majority was faring well economically relative to key national economic indicators.
- In our July 2001 report, we concluded that estimated BRAC net savings had reportedly increased to \$15.5 billion from the \$14 billion we reported in our December 1998 report. Accumulated savings began to surpass accumulated costs in fiscal year 1998. We observed that BRAC savings were real and substantial, but limitations existed in DOD's effort to track costs and savings that affect the precision of its estimates.
- In our August 2001 report, we concluded that BRAC closing and realignment actions were essentially completed, but the subsequent transfer of unneeded base property was only partially completed. Environmental cleanup was progressing but would require many years to fully complete. Most communities were recovering from the economic impacts of base closures because of several factors, such as a strong national or regional economy and federal assistance programs.
- In our April 2002 report, we concluded that most (about 58 percent) former unneeded base property had not yet been transferred to other users, the closure process was generating substantial savings (about \$16.7 billion, although the savings estimates were imprecise), the total expected environmental cleanup costs were still within range of the cost estimates made in 1996, and most communities surrounding closed bases were faring well economically in relation to key national economic indicators.

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<sup>14</sup> GAO, *Military Base Closures: Overview of Economic Recovery, Property Transfer, and Environmental Cleanup*, [GAO-01-1054T](#) (Washington, D.C.: Aug. 28, 2001) and GAO, *Military Base Closures: DOD's Updated Net Savings Estimate Remains Substantial*, [GAO-01-971](#) (Washington, D.C.: July 31, 2001).

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## Most Unneeded BRAC Property Had Been Transferred

As of September 30, 2004, nearly 72 percent (364,000 acres) of the approximately 504,000 acres<sup>15</sup> of unneeded BRAC property from the prior rounds had been transferred to other federal or nonfederal entities. When leased land is added to this acreage, the amount of unneeded BRAC property that is in reuse increases to 90 percent. The remaining untransferred property (140,000 acres) has not been transferred primarily because of environmental cleanup issues. DOD has used and continues to use several methods to transfer property and expedite its reuse.

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## Transfer of Unneeded BRAC Property Is More Than Two-Thirds Complete

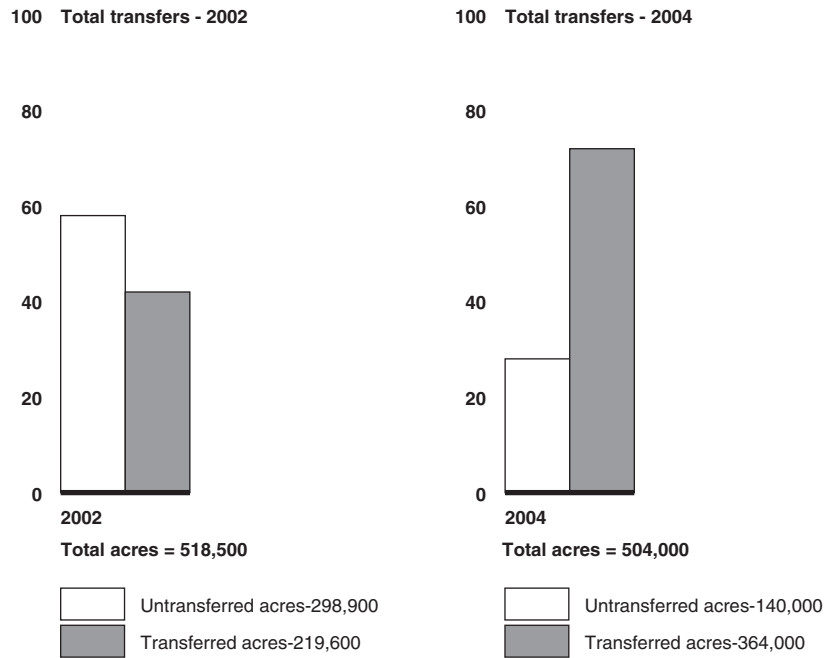
Of the approximately 504,000 unneeded acres available for disposal external to DOD, 72 percent had been transferred to either federal or nonfederal entities, while 28 percent, including leased acreage, remains in DOD's inventory. DOD has made progress in transferring property in the aggregate since our 2002 report, having increased the transfer rate from 42 percent to 72 percent (see fig. 2). The transfers of property at the Naval Air Facility in Adak, Alaska, and the Sierra Army Depot, California, are the largest transfers since our April 2002 report, accounting for a combined total of nearly 129,000 acres. A breakdown of the current status of unneeded BRAC property shows that (1) 52 percent had been transferred to nonfederal entities, (2) 20 percent had been transferred to other federal agencies, (3) 18 percent had been leased but not transferred, and (4) 10 percent was untransferred and is awaiting future disposition (see fig. 3).

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<sup>15</sup> The unneeded acreage does not include property at the Pueblo Chemical Depot, Colorado, and the Umatilla Chemical Depot, Oregon, which, although designated as unneeded, will not be available for further disposition until the chemical demilitarization mission at these bases is completed.



**Figure 2: BRAC Property Transfers as Reported in 2002 and 2004**

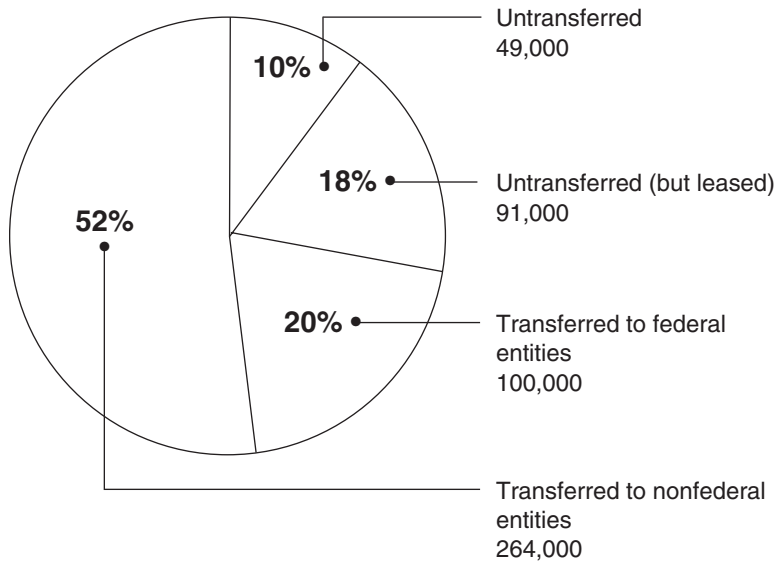


Source: GAO's analysis of DOD data.

Note: Acreage shown may vary slightly from our previous reports. As property is transferred, more accurate surveys are being completed, which changes the amount of available acres from one year to another. Further, some acreage initially declared excess has been retained by DOD, thus decreasing the acreage available for transfer.

**Figure 3: Disposition of Unneeded BRAC Acreage**

Total acreage = 504,000



Source: GAO's analysis of DOD data.

Note: As part of the BRAC process, DOD retained an additional 343,000 acres at closing and realigning bases as needed for reserve component use. Most of this property was converted from active component management to the reserve component and is located at several Army bases, including Fort Hunter Liggett, California; Fort Chaffee, Arkansas; Fort Pickett, Virginia; Fort Dix, New Jersey; and Fort McClellan, Alabama.

Even though DOD has 140,000 acres of its BRAC property remaining to be transferred, much of this land is in long-term lease with other users. Altogether, the services have nearly 91,000 acres (65 percent) of their untransferred property under lease, leaving 49,000 acres (35 percent) that has not been transferred and not in reuse. The department expects that this property will eventually be transferred to nonfederal users. Leased property, while not transferred to the user, can afford the user and DOD some benefits. Communities, for example, can opt for leasing, while awaiting final environmental cleanup, as an interim measure to promote property reuse and job creation. And, DOD can often gain an advantage, in some cases, as the communities assume responsibility and pay for protecting and maintaining the property. By adding leased acres to the number of transferred acres, the amount of unneeded BRAC property in reuse rises to 90 percent.

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## Most Property Transfer Delays Are Due to Environmental Cleanup Issues

As we have reported in the past, environmental cleanup constraints have and continue to delay the services from rapidly transferring unneeded BRAC property. Army data show that about 82 percent of its approximate 101,000 untransferred acres has some kind of environmental impediment, such as unexploded ordnance (UXO)<sup>16</sup> or some level of chemical contamination that requires cleanup before transfer can take place. Navy data show that about 65 percent of the Navy's almost 13,000 untransferred acres could not be transferred because of environmental reasons. Likewise, about 98 percent of the Air Force's approximately 24,000 untransferred acres is due to environmental cleanup issues. Table 1 shows those BRAC installations with untransferred acreage that had substantial estimated costs for fiscal year 2004 and beyond for completing environmental cleanup actions. The estimated completion costs for these BRAC installations account for nearly 60 percent of DOD's future BRAC environmental cleanup estimates for the previous rounds. Further detail on environmental costs for BRAC property is included in the next section of this report.

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<sup>16</sup> Ordnance that remains unexploded either through malfunction or design and can injure personnel or damage material. Types of UXO include bombs, missiles, rockets, artillery rounds, ammunition, or mines. DOD, *Defense Environmental Restoration Program Annual Report to Congress—Fiscal Year 2003* (Washington, D.C., April 2004), Appendix F, page F-21. In this report UXO also refers to munitions and explosives of concern (MEC).

**Table 1: Projected Future Environmental Cleanup Costs for Selected BRAC Installations (Fiscal Year 2004 and Beyond)**

Dollars in millions

Service	Base	Affected acres	Estimated future costs for cleanup
Air Force	McClellan Air Force Base, Calif.	1,739	\$772.7
Army	Ft. Ord, Calif.	14,088	321.7
Air Force	Kelly Air Force Base, Tex.	1,333	208.7
Air Force	Castle Air Force Base, Calif.	2,010	150.4
Navy	Alameda Naval Air Station, Naval Aviation Depot, Calif.	2,599	138.2
Air Force	Mather Air Force Base, Calif.	1,747	107.5
Air Force	Loring Air Force Base, Maine	1,050	106.7
Navy	Hunters Point, Calif.	792	71.9
Army	Seneca Army Depot, N.Y.	1,789	71.6
Army	Savanna Depot Activity, Ill.	2,616	55.4
Navy	Naval Ship Yard, Mare Island, Calif.	1,132	51.6
Navy	El Toro Marine Corps Air Station, Calif.	840	49.3
Navy	Naval Air Station, South Weymouth, Mass.	808	38.6

Source: GAO's analysis of DOD data.

Note: Does not include acreage that has been transferred and which still has ongoing environmental cleanup activities.

## DOD Is Using Several Methods to Expedite Property Transfer

As previously discussed, DOD has several options available to expedite the transfer of its unneeded property for further reuse by other entities. The following provides a brief summary of the various methods that have been used to transfer BRAC property to nonfederal users:

- *Public benefit conveyances:* As noted earlier, this method is used to transfer property primarily to state and local governments specifically for an exclusive and protected public use, usually at little or no cost. This type of conveyance is sponsored by a federal agency that is closely aligned with its intended use. For example, the Federal Aviation Administration handles public benefit conveyances of BRAC airfields and facilities, and the National Park Service sponsors public benefit conveyances for new public parks and recreation facilities. Nearly 18 percent of the BRAC acreage transferred to nonfederal users in the prior rounds was accomplished through this method.
- *Economic development conveyances:* As noted earlier, this method is used to transfer property to local redevelopment authorities for the purpose of creating jobs and promoting economic activity within the local community. Under this transfer method, many communities could receive

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property at fair market value or below, and at no cost to those in rural areas. The National Defense Authorization Act for Fiscal Year 2000 required all future economic development conveyances to be no cost and permitted those currently in-force to be converted to no-cost conveyances if certain conditions were met.<sup>17</sup> According to DOD and community officials, this method had gained in popularity with the adoption of the no-cost provision, which, in addition to saving money for the new user, virtually eliminated the delays resulting from prolonged negotiations over the fair market value of the property and accelerated economic development and job creation. We note, however, the National Defense Authorization Act for Fiscal Year 2002 included a provision stipulating that DOD is to seek to obtain fair market value for BRAC-related transfers of property in the upcoming 2005 round.<sup>18</sup> Although the BRAC law still allows DOD to transfer properties for economic development at no cost under certain circumstances, the general requirement for the 2005 round to seek fair market value may impact the use of this method of conveyance. Nearly 32 percent of the BRAC acreage transferred to nonfederal users in the prior rounds was accomplished through economic development conveyances.

- *Conservation conveyances:* This method was used by DOD for the first time in September 2003 to transfer property for natural resource and conservation purposes. Under this method, the Army transferred almost 58,000 acres from the Sierra Army Depot, California, to the Honey Lake Conservation Team, which is made up of two nonprofit organizations—the Center for Urban Watershed Renewal and the Trust for Public Lands—and two private-sector companies. This is the largest single transfer of surplus BRAC property that the Army has undertaken. Nearly 22 percent of the BRAC acreage transferred to nonfederal users in the prior rounds was accomplished through this method.

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<sup>17</sup> P.L. 106-65, § 2821 (Oct. 5, 1999).

<sup>18</sup> P.L. 107-107, § 3006 (Dec. 28, 2001).

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- *Other conveyances:* Unneeded BRAC property can also be transferred through special legislation, reversion, lease termination/expiration, or sales. Congress can, through special legislation, determine the terms and conditions for transferring specific BRAC properties. For example, through special congressional legislation,<sup>19</sup> the Navy transferred over 47,000 acres of its 71,000-acre Adak, Alaska, Naval Air Facility to a local redevelopment authority in March 2004 through the Department of the Interior in exchange for other land that the Navy needed.<sup>20</sup> Almost 19 percent of BRAC acreage was transferred to nonfederal users through special legislation. DOD data show that only 3 percent of the nonfederal conveyances were reversions. Additionally, the termination or expiration of a lease on BRAC property for nonfederal users accounted for about 4 percent of the transfers, while negotiated and public sales accounted for only 4 percent of the property transfers.

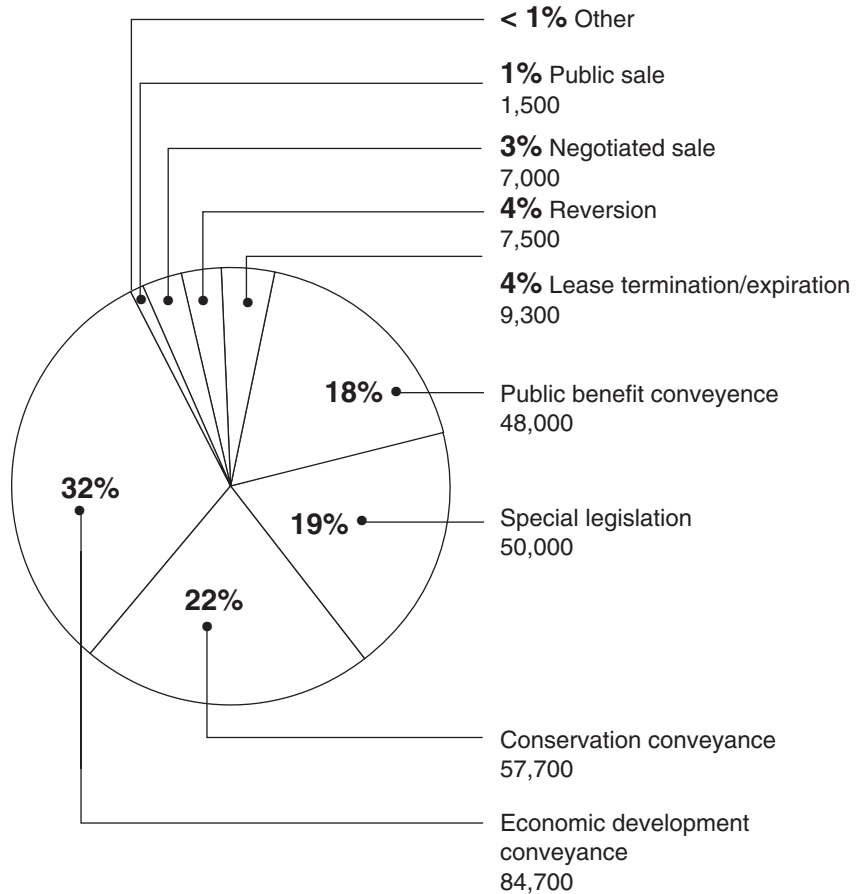
Figure 4 summarizes the acreage transfers by the various conveyance methods.

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<sup>19</sup> See P.L. 107-239 (Oct. 11, 2002).

<sup>20</sup> The Navy occupied the property comprising the former Naval Air Facility, Adak, Alaska, under a public land withdrawal within a national wildlife refuge. Special legislation ratified a land transfer agreement among the Navy, the U.S. Fish and Wildlife Service (USFWS), and The Aleut Corporation (an Alaska Native regional corporation) under which the Navy relinquished 47,000 acres of the public land withdrawal to the Department of the Interior, which in turn conveyed the property to The Aleut Corporation in exchange for other lands within the national wildlife refuge boundaries. The Navy relinquished an additional 24,000 acres to USFWS, which resumed full custody as part of the wildlife refuge.

**Figure 4: Methods Used to Transfer Unneeded BRAC Acreage to Nonfederal Entities**



Source: GAO's analysis of DOD data.

Notes: Acreage is rounded to the nearest 100 acres.  
Percentages may not add due to rounding.

In most cases, unneeded property on a BRAC base is divided into parcels and transferred in this manner according to intended reuse plans. Thus, most of the individual actual transfers are for less than 2,000 acres. However, in some cases, the amounts can be larger. For example, the transfers of Naval Air Facility Adak, Alaska (about 71,000 acres), and Sierra Army Depot, California (about 58,000 acres), are two large transfers that have occurred since our April 2002 report. Table 2 shows the transfer methods used to convey the 5 largest tracts of BRAC property for each service across the prior rounds to date.

**Table 2: Major Transfers of BRAC Property by Service (as of September 30, 2004)**

Service	BRAC installation	Acres	Major transfer methods
Army	Sierra Army Depot, Calif.	57,633	Conservation conveyance
	Ft. McClellan, Ala.	9,909	Economic development conveyance
	Ft. Meade, Md.	8,102	Federal-to-federal transfer
	Ft. McClellan, Ala.	7,843	Federal-to-federal transfer
	Ft. Ord, Calif.	7,229	Federal-to-federal transfer
Navy	Adak, Alaska	71,176	Special legislation/reversion
	Cecil Field, Fla.	16,481	Public benefit conveyance Economic development conveyance
	Salton Sea, Calif.	13,553	Reversion Lease expiration
	Chase Field, Tex.	3,333	Economic development conveyance Negotiated sale
	Barbers Point, Hawaii	2,037	Public benefit conveyance
Air Force	Loring Air Force Base, Maine	8,262	Federal-to-federal transfer Economic development conveyance
	Williams Air Force Base, Ariz.	3,840	Public benefit conveyance
	March Air Force Base, Calif.	3,792	Public benefit conveyance Economic development conveyance
	Pease Air Force Base, N.H.	3,770	Federal-to-federal transfer Public benefit conveyance
	Wurtsmith Air Force Base, Mich.	3,733	Public benefit conveyance Economic development conveyance Lease expiration

Source: GAO's analysis of DOD data.

## Early Transfer Authority

DOD has the authority to transfer unneeded BRAC property, even if all environmental cleanup actions have not been completed, through a special authority granted by Congress called early transfer authority.<sup>21</sup> The authority must be used in conjunction with one of the conveyance methods, such as an economic development conveyance, authorized to transfer BRAC property. The department credits early transfer authority for allowing it to put BRAC property into reuse much faster by conveying the property through one of its transfer authorities while concurrently meeting cleanup obligations.

<sup>21</sup> 42 U.S.C. § 9620 (h) (3) (c).



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We initially reported in 2002 that several factors were working against the widespread application of this authority, to include community adversity to taking risks, absence of ready to implement reuse plans, and lack of support from local and state regulators. Furthermore, we cited that exercising the authority might require DOD to commit more funds, in the short term, than what is available to meet environmental cleanup requirements. Regardless of when or how BRAC property is transferred, liability for cleanup in compliance with applicable federal and state regulatory requirements remains with DOD. Cleanup of property subject to the early transfer authority does not necessarily have to be conducted exclusively by DOD. DOD can share cleanup actions with the transferee, or the transferee can conduct and pay for cleanup actions. DOD can also enter into agreements with a transferee, usually a local redevelopment authority, for the privatization of cleanup efforts. In either case, the department funds the cleanup and generally retains liability for future costs associated with the discovery of additional environmental contamination associated with prior DOD activities.

As the early transfer process has evolved over its short history, the use of the authority has increased.<sup>22</sup> The Army has transferred almost 8,300 acres; the Navy has transferred over 9,500 acres; and the Air Force has transferred over 700 acres using early transfer authority. These figures represent more than twice the combined acreage (about 8,225 acres) that we reported in 2002 as being transferred under this authority.

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<sup>22</sup> For more information, see DOD's Early Transfer Guide ([http://www.dtic.mil/envirodod/Policies/BRAC/ETA\\_Guide.pdf](http://www.dtic.mil/envirodod/Policies/BRAC/ETA_Guide.pdf)).

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## BRAC Net Savings Are Substantial but Imprecise

According to DOD financial data, the four prior BRAC rounds generated an estimated \$28.9 billion in net savings through fiscal year 2003.<sup>23</sup> Moreover, DOD expects to accrue additional annual recurring savings or cost avoidances of about \$7 billion in fiscal year 2004 and thereafter. As we have previously reported, however, the cost and savings projections that DOD uses to estimate net savings are imprecise because the military services have not regularly updated their savings projections and DOD's accounting systems do not track estimated savings. Moreover, DOD has not incorporated all base closure-related costs in its estimates, thus tending to overestimate savings. On the other hand, the estimated net savings could be greater than DOD has reported because some costs attributed to the closures, such as environmental cleanup, may have occurred even if the bases remained open. DOD has a legal obligation to conduct environmental cleanup irrespective of closing or realigning an installation.

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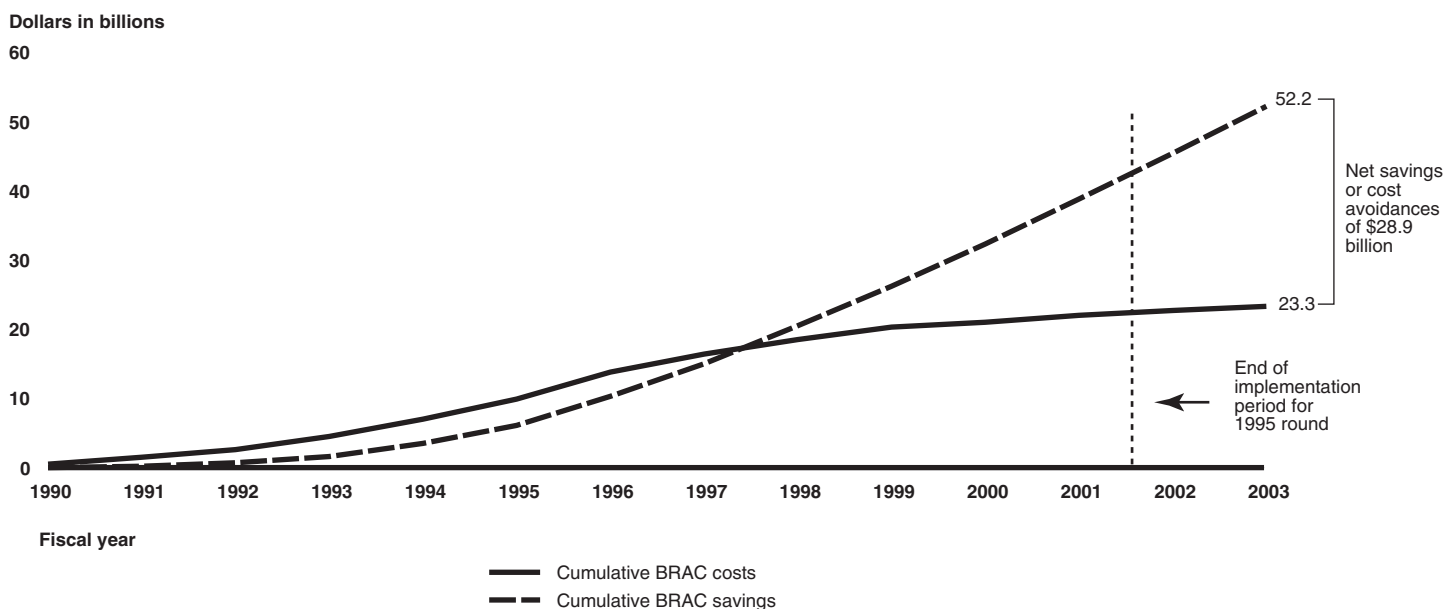
## BRAC Net Savings Estimates Remain Substantial

Our analysis of DOD data shows that the department had accrued an estimated \$28.9 billion in net savings or cost avoidances through fiscal year 2003 for the four prior BRAC rounds. This amount, which includes costs and estimated recurring savings from fiscal years 2002 and 2003, represents an increase over the \$16.7 billion in net savings accrued as of fiscal year 2001 that we cited in our 2002 report. In calculating net savings, DOD deducts the costs of implementing BRAC actions for the four closure rounds from the estimated savings. As figure 5 shows, the cumulative estimated savings surpassed the cumulative costs to implement BRAC actions in 1998, and the net savings have grown and will continue to grow from that point, even though some costs (e.g., environmental cleanup) have been incurred after that time and some costs will continue well beyond 2003.

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<sup>23</sup> At the time of our review, the latest available budget execution data were through fiscal year 2003.

**Figure 5: Cumulative BRAC Cost and Savings Estimates for the Prior Rounds through Fiscal Year 2003**



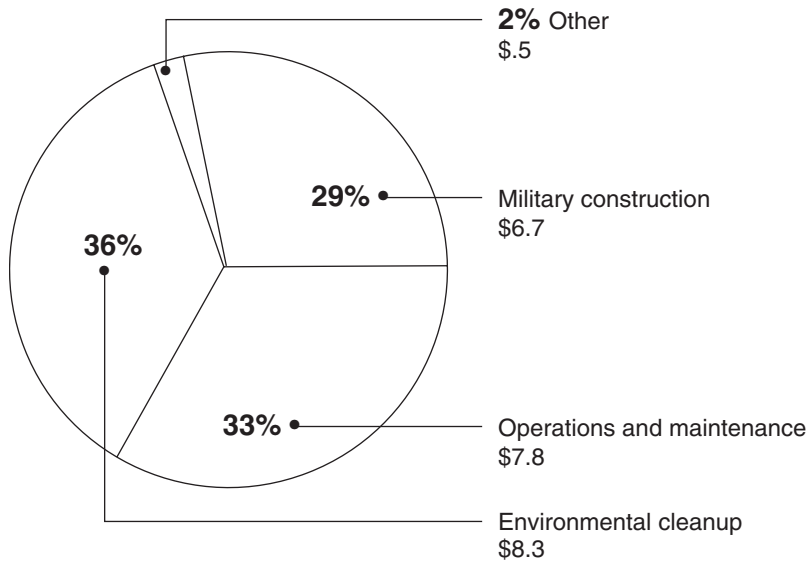
Source: GAO's analysis of DOD data.

Note: The cost figures do not include about \$1.9 billion expended by several federal agencies to provide redevelopment assistance to BRAC-affected communities.

Our analysis shows that the rate of net savings accumulation increased because the cumulative BRAC costs flattened out just before the 6-year implementation period for the last round ending in fiscal year 2001. Most expenses associated with closures and realignments were incurred through fiscal year 2001; most of the expenses beyond fiscal year 2001 were primarily for environmental cleanup. Through fiscal year 2003, the cumulative costs to implement the four prior round actions amounted to about \$23.3 billion (see fig. 5). As shown in figure 6, approximately one-third (\$7.8 billion) of this amount was spent for operations and maintenance, such as the maintenance and repair to keep facilities and equipment in good working order, as well as civilian severance and relocation costs. A little more than one-third (\$8.3 billion) was spent on environmental cleanup and compliance activities, for example, to reduce, remove, and recycle hazardous wastes and remove unsafe buildings and debris from closed bases. Finally, a little less than one-third (\$6.7 billion) was used for military construction, including renovating existing facilities and constructing new buildings at military bases that were not closed to accommodate relocating military units and various functions.

**Figure 6: Costs Incurred for Prior BRAC Rounds through Fiscal Year 2003**

**Total = \$23.3 billion**

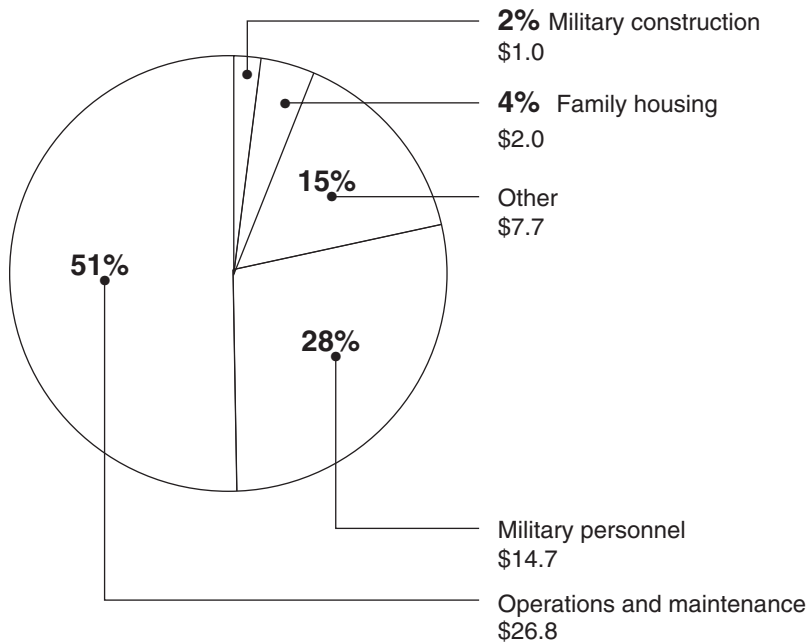


Source: GAO's analysis of DOD data.

According to DOD data, BRAC cumulative savings or cost avoidances will rise steadily for an indefinite period as BRAC actions are completed. As figure 7 shows, DOD estimates that it accrued BRAC savings of \$52.2 billion through fiscal year 2003 as a result of eliminating or reducing operation and maintenance costs, including base support costs, and eliminating or reducing military and civilian personnel costs. Of this amount, about half (\$26.8 billion) can be attributed to savings from operation and maintenance activities, such as terminating or reducing physical security, fire protection, utilities, property maintenance, accounting, civilian payroll, and a variety of other services that have associated costs. An additional \$14.7 billion in estimated savings resulted from military personnel reductions.

**Figure 7: Estimated Savings Breakout for Prior BRAC Rounds through Fiscal Year 2003**

Total: \$52.2 billion (exclusive of implementation costs)



Source: GAO's analysis of DOD data.

Moreover, DOD expects to accrue an estimated \$7 billion in annual recurring savings in fiscal year 2004 and beyond for the four BRAC rounds. This amount represents an increase of approximately \$486 million from our prior reporting in 2002 and is attributable to inflation over that time period.

## Precision of Cost and Savings Estimates Is Limited

The savings and cost estimates used by DOD to calculate the net savings at its BRAC-affected bases are imprecise, primarily because the military services have not periodically updated their savings estimates and DOD does not include all costs associated with BRAC closures in its estimates. Further, net savings may be larger than DOD estimates because some environmental and construction costs associated with ongoing environmental and facility recapitalization programs at BRAC-affected bases would have at least partially offset future costs at those locations if they were not closed or realigned.

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## BRAC Savings Estimates Were Not Updated Periodically

The results of our prior work showed that the military services, despite DOD guidance that directs them to update savings estimates in their annual budget submissions, had not periodically updated these estimates, thereby contributing to imprecision in overall BRAC estimated net savings figures. Moreover, a fundamental limitation exists in DOD's accounting systems, which, like other accounting systems, are not oriented toward identifying and tracking savings. Other reasons cited by service officials are that updating savings has not been a high priority and that it is a labor-intensive process that could be costly. Nonetheless, the periodic updating of estimates is important, especially in view of the upcoming 2005 BRAC round, in order to increase their accuracy for DOD and congressional decision makers.

As early as 1998, DOD reported<sup>24</sup> it had plans to improve its savings estimates for the implementation of future BRAC rounds. In addition, in our April 2002 report, we recommended that DOD develop a DOD-wide systematic approach for the periodic updating of initial closure savings estimates, along with an oversight mechanism to ensure these updates are accomplished for the upcoming 2005 BRAC round. We continue to believe this recommendation remains valid. DOD has not yet acted on our recommendation, but DOD officials told us that they intend to implement a system to better track savings for implementing the upcoming round actions.

## BRAC Costs Are Not Comprehensive

Prior BRAC round costs are not comprehensive because they do not include certain costs related to BRAC activities that are incurred either by DOD or by other governmental agencies. For example, DOD's calculation of one-time estimated net savings does not include BRAC-related economic assistance costs, most of which are incurred by federal agencies other than DOD. As of September 30, 2004, federal agencies reported that they had spent about \$1.9 billion (an increase from the \$1.5 billion in our 2002 report) to assist BRAC-affected communities and individuals for such purposes as base reuse planning, airport planning, job training, infrastructure improvements, and community economic development. These activities include the following:

- About \$611 million was provided by the Department of Commerce's Economic Development Administration to assist communities with

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<sup>24</sup> See DOD, *Report of the Department of Defense on Base Realignment and Closure* (Washington, D.C.: April 1998).

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## Cost Avoidances May Be Greater Than Estimated

infrastructure improvements, building demolition, and revolving fund loans.

- About \$760 million was provided by the Federal Aviation Administration to assist with converting former military airfields to civilian use.
- About \$223 million was provided by the Department of Labor to help communities retrain workers who lost their jobs. The Department of Labor has not provided additional funding since we last reported in 2002.
- About \$280 million was provided by DOD's Office of Economic Adjustment to help communities plan and implement the reuse of BRAC bases.

While these costs represent a relatively small percentage (about 7 percent) of the overall net savings estimate through 2003, it does demonstrate the imprecision of the overall BRAC savings estimate. However, our analysis of DOD and other federal agencies' data shows that this percentage will most likely diminish over time as the net savings continue to grow.

While the noninclusion of certain costs, as noted above, has the tendency of overstating savings or cost avoidances, DOD's difficulty in providing precise estimates is further complicated by the fact that some BRAC actions could produce savings that are not captured in its net savings estimates. For example, the inclusion of BRAC environmental cleanup costs in calculating net savings has the effect of overstating costs and understating net savings for DOD because the department has a legal obligation to conduct environmental cleanup irrespective of closing or realigning an installation. A similar case can be made for military construction projects in the BRAC program. While DOD had expended significant BRAC funds (about \$6.7 billion through fiscal year 2003) on military construction at its receiving bases, it would have likely incurred many of these costs over time under its facilities capital improvement initiatives if the closing bases had remained open.

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## Environmental Cleanup Cost Estimates Have Remained Near Prior Projected Estimates but May Change

Our analyses of DOD data show that although environmental cleanup cost estimates at BRAC sites are within the range of prior projections, they may fluctuate because of unknown or undetermined future environmental cleanup responsibilities or improved cleanup techniques. DOD expected to spend an estimated \$3.6 billion in fiscal year 2004 and beyond to complete environmental cleanup on BRAC properties, bringing the total BRAC environmental costs to \$11.9 billion, which is still within prior estimates. The estimates of future projected liabilities have decreased since last year as a result of reported focused management oversight and review of restoration costs and schedules, completion of more cleanup actions, and

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reevaluation of some sites. However, the estimated liabilities may change due to unforeseen or undetermined environmental liabilities, such as the discovery of additional UXO or contaminants, which may exist on BRAC properties. Moreover, revisions to cleanup standards or the intended reuse of the land not yet transferred could prompt the need to change cleanup requirements, which would in turn affect costs.

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### Environmental Cleanup Costs Have Remained Near Prior Projected Estimates

Our analysis shows that the total estimated environmental cleanup cost of about \$11.9 billion for the prior BRAC rounds is within the range of prior program estimates. The cost estimate is slightly higher than DOD's previous estimate of \$10.5 billion in 2002 and \$11.3 billion in 1996.<sup>25</sup> DOD had obligated approximately \$8.3 billion in BRAC environmental cleanup and compliance costs through fiscal year 2003, and it estimates that future costs for fiscal year 2004 and beyond will now amount to \$3.6 billion.

The \$3.6 billion estimate for future BRAC environmental liabilities is about \$1 billion less than DOD had previously projected for fiscal year 2003 and beyond. The decrease is attributable primarily to about \$761 million that DOD spent on environmental cleanup and compliance in fiscal year 2003 and to a number of actions taken by the services. For example, the Air Force reportedly applied more focused management oversight and review of estimated restoration costs and schedules to the Air Force Restoration Information Management System, accounting for a \$174.7 million decrease; the Navy reduced its estimates based largely on conservative project execution rates, accounting for a \$137.4 million decrease; and the Army recharacterized some of its cleanup sites, accounting for a \$56.5 million reduction.

However, DOD acknowledged in its 2003 Performance and Accountability Report that the total future environmental liability estimates for remaining BRAC sites may need to be adjusted because the DOD Inspector General questioned the reliability of DOD environmental cost estimates, primarily

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<sup>25</sup> GAO, *Military Base Closures: Reducing High Costs of Environmental Cleanup Requires Difficult Choices*, [GAO/NSIAD-96-172](#) (Washington, D.C.: Sept. 5, 1996).



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citing incidents of a lack of supporting documentation for the estimates and incomplete audit trails.<sup>26</sup>

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**Unforeseen or  
Undetermined  
Environmental Hazards  
May Change Future  
Cleanup Costs**

Estimating the costs of future environmental cleanup on BRAC properties is complicated by the possibility that these properties might contain unknown or emerging environmental hazards, which could change cleanup costs. For example, costs could change as the result of the discovery of additional UXO or of previously unregulated chemical contaminants or waste in the ground or groundwater. Estimates of future liabilities may also change if certain federal environmental standards change, the intended use of yet-to-be-transferred BRAC property is revised, or cleanup techniques are improved.

As of the end of fiscal year 2003, DOD stated that about 78 percent of cleanup activities on BRAC sites with identified hazardous waste were reportedly complete and met the CERCLA standards. However, there are questions about the extent of additional potential cleanup costs associated with UXO and perchlorate contamination on various DOD sites, including BRAC installations. The following provides an update on DOD's activities concerning these particular hazards:

- *UXO*: While clearing BRAC property of UXO for further reuse has presented a difficult and costly challenge for the department, DOD is making progress through its Military Munitions Response Program.<sup>27</sup> This program is designed to address UXO hazards not only on BRAC property but all DOD property, with the exception of operational ranges. Through fiscal year 2003, the department had addressed UXO problems on 148 of the 196 BRAC sites (76 percent) on 32 BRAC installations where UXO was identified. It completed UXO cleanup on 126 of the total sites (64 percent), and it is currently working on the other 22 sites that were addressed. While all sites were identified prior to fiscal year 2001, DOD had not yet completed establishing program goals or developing metrics to track

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<sup>26</sup> DOD Inspector General, *Independent Auditor's Report on the Department of Defense Fiscal Year 2003 Agency-Wide Principal Financial Statements, D-2004-036* (Arlington, Va.: Dec. 10, 2003) and *Financial Management: Environmental Liabilities Required To Be Reported on Annual Financial Statements, D-2004-080* (Arlington, Va.: May 5, 2004).

<sup>27</sup> DOD established the Military Munitions Response Program under the Defense Environmental Restoration Program (DERP) in September 2001. Initial program requirements and management structure are set out in "Management Guidance for the Defense Environmental Restoration Program, September 2001."

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projects, assess risks, and prioritize the remaining cleanup sites. The Navy estimates that its BRAC UXO cleanup costs for fiscal year 2004 and beyond will be about \$32.3 million and will involve 2,353 acres. Similarly, the Army estimates that its remaining UXO cleanup costs will approach \$496 million on 21,000 acres, with the largest costs (about \$266 million on 4,500 acres) forecasted at the former Fort Ord base in California. The Air Force estimates that it will spend nearly \$2.3 million on UXO cleanup costs affecting 180 BRAC acres, of which \$2 million will likely be spent on the cleanup of the former Carswell Air Force Base, Texas.

- *Perchlorate:* Perchlorate is a chemical munitions constituent that is present on some BRAC bases and which may cause adverse health effects by contaminating drinking water. Health experts have not conclusively determined what amount of perchlorate poses a health risk for humans, and no federal standard exists for allowable levels of perchlorate in drinking water. Nonetheless, the existence of perchlorate does pose a potential future liability for DOD, but that liability would depend on the standard that may be set in the future as well as the extent of its presence on BRAC installations and the intended reuse of the property. However, it should be noted that this issue could affect open as well as closing bases. In September 2003, DOD required the military components to assess the extent of perchlorate occurrence at active and closed installations and at its formerly used defense sites.<sup>28</sup> In addition, DOD invested \$27 million to conduct research on the potential health effects, environmental impacts, and treatment processes for perchlorate. In a report directed by Congress, DOD was required to identify the sources of perchlorate on BRAC properties and describe its plans to clean up perchlorate contamination on these sites.<sup>29</sup> DOD officials stated that they assessed 14 sites, which did not include any BRAC property already transferred or deeded to other entities. The department issued its assessment in July 2004 and concluded that while it had adopted a perchlorate sampling policy that includes untransferred BRAC properties, DOD stated it will commit to integrating perchlorate remediation into its cleanup program once a regulatory standard is established.<sup>30</sup>

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<sup>28</sup> Improving DOD Infrastructure and Facilities: Hearing on Defense Budget Before the Readiness Subcommittee of the House Armed Services Committee, 108th Cong. (Feb. 26, 2004) (statement of Raymond F. Dubois, Deputy Undersecretary of Defense, Installations and Environment).

<sup>29</sup> H.R. Conf. Rpt. No. 108-342 at 17 (2003).

<sup>30</sup> DOD letter to Congress dated July 7th, 2004, on plans to address perchlorate at BRAC properties as directed by H.R. Conf. Rpt. No. 108-342 at 17 (2003).

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## Most Communities Have Recovered or Are Recovering from the Economic Impact of BRAC

Most communities have recovered or are recovering from the impact of base closures, with more mixed results recently, allowing for some negative impact from the national economic downturn of recent years. DOD data indicate that the percentage of local DOD civilian jobs that were lost at the bases and have been replaced by reuse has increased since our 2002 report. Moreover, recent economic data show that affected BRAC communities are faring well when compared to national economic indicators. Although the average unemployment rate increased for most of the 62 BRAC communities we reviewed in 2002, nearly 70 percent had unemployment rates lower than the national average. In addition, 48 percent of communities had annual real per capital income growth rates above the U.S. average, as compared with the 53 percent stated in our last report. The growth rate declined for 74 percent of all BRAC communities as compared to our 2002 report. As we have reported in the past, the recovery process has not necessarily been easy with the strength of the national, regional, and local economies having a significant bearing on the recovery of any particular community facing a BRAC closure.

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## Percentage of Local Jobs Replaced Has Increased

The redevelopment of base property is widely viewed as an important component of economic recovery for BRAC-affected communities. While not the only determinant<sup>31</sup> of economic recovery for surrounding communities, it can, nevertheless, be an important catalyst for recovery efforts. The closure or realignment of military bases creates job losses at these facilities, but subsequent redevelopment of the former bases' property provides opportunities for creating new jobs.

As DOD last reported, as of October 31, 2003, almost 72 percent (92,921)<sup>32</sup> of the 129,649 DOD civilian jobs lost on military bases as a result of realignments or closures in the prior BRAC rounds had been replaced at these locations. This is 10 percent higher than the 62 percent (79,740) we reported in 2002 and over time, the number of jobs created will likely increase as additional redevelopment occurs. See appendix II for a detailed listing of jobs lost and created at major BRAC locations during the prior four rounds.

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<sup>31</sup> Our prior work has shown that a number of factors, including national, regional, and local economic trends; leadership and teamwork; public confidence; and government assistance may also play important roles in the economic recovery process.

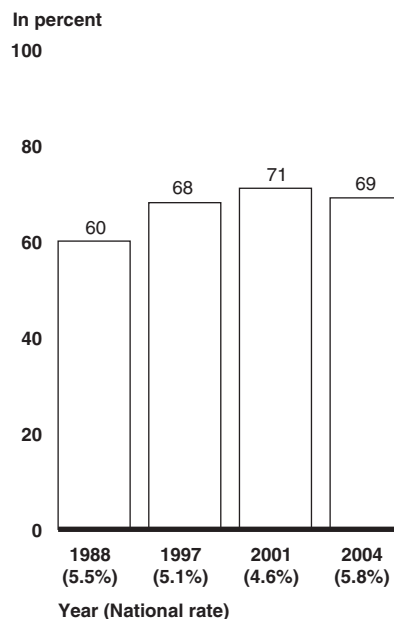
<sup>32</sup> The figures do not include jobs lost or created in the civilian communities surrounding the realigned or closed bases.

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## Unemployment Rates Compare Favorably with National Average

Unemployment rates in BRAC-affected communities continue to compare favorably with the national average. Since 1997 (after completion of the implementation periods for the first two rounds in 1988 and 1991) and through the implementation periods of the last two rounds (1993 and 1995), about 70 percent of the 62 BRAC-affected communities have consistently been at or below the national unemployment rate (see fig. 8).

**Figure 8: Comparison of the Percentage of BRAC-Affected Communities at or below the Average National Unemployment Rate over Time**



Source: GAO's analysis of DOD data.

According to our analysis of the annual unemployment rates for the 7-month period ending July 31, 2004, most of the 62 BRAC-affected communities compared favorably with the national average and were consistent with the results we reported in 2002. During this period, 43 of the 62 communities (69 percent) affected by base closures had unemployment rates at or below the average 7-month national rate of 5.8 percent. This is one less community than in our 2002 report when 44 communities (71 percent) had average unemployment rates lower than the (then) average 9-month national rate of 4.6 percent. For all BRAC communities with higher-than-average calendar year 2004 unemployment rates through July 2004, four had double-digit rates: Merced County, California (Castle Air Force Base), 15.8 percent; Mississippi County, Arkansas (Eaker Air Force Base), 13.0 percent; Salinas, California

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(Fort Ord Army Base), 11.1 percent; and Iosco County, Michigan (Wurtsmith Air Force Base), 10.2 percent. Salinas, California, is the one addition to the other three communities that we also cited in our 2002 report for having double-digit unemployment rates. Appendix III provides additional detail on the average unemployment rates for the 62 communities.

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### Average Annual Real Per Capita Income Growth Rates Show Mixed Results

Annual real per capita income growth rates for BRAC-affected communities exhibit mixed results. The latest available data (1999-2001 time frame) show that 30 (48 percent) of the 62 communities we studied had an estimated average real per capita income growth rate that was above the national average of 2.2 percent.<sup>33</sup> This is a decline from our 2002 report in which 33 communities (53 percent) matched or exceeded the national rate of 3.03 percent during the 1996-1999 time frame. Additionally, our current analysis shows that of the 32 communities below the national average, 6 communities (10 percent) had average annual per capita income growth rates that were close to the national average (defined as within 10 percent), while the remaining 26 communities (42 percent) were below the national average growth rate. Forty-six (74 percent) of the 62 communities had lower per capita income growth rates than when we last reported on them in 2002. Three communities—Merced, California (Castle Air Force Base); Austin-San Marcos, Texas (Bergstrom Air Force Base); and Carroll County, Illinois (Savanna Army Depot)—had negative growth rates. By comparison, our 2002 report showed that no communities experienced a negative growth rate. Appendix IV provides additional detail on the average annual real per capita income growth rates for the 62 communities.

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### Concluding Observations

As DOD prepares to undertake another round of base realignments and closures in 2005, we note that the department has made progress in completing postrealignment and closure actions from the prior four rounds since our last update in 2002. Seventy-two percent of former base property has been transferred and about 90 percent is in reuse if leased property is considered. And, as reported in the past, environmental cleanup requirements present the primary challenge to transferring the

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<sup>33</sup> Average annual real per capita income rates for 2002-2003 or later incorporate new Office of Management and Budget metropolitan area definitions that are not consistent with those for the communities we have assessed in this and previous BRAC update reports.

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remaining property. Although we are making no recommendations in this report, we believe that our April 2002 report recommendation underscoring the need for a DOD-wide systematic approach for the periodic updating of savings estimates, along with an oversight mechanism to ensure these updates are accomplished for the 2005 BRAC round recommendations, remains valid. More specifically, we recommended that the Under Secretary of Defense for Acquisition, Technology, and Logistics, in consultation with the Under Secretary of Defense (Comptroller and Chief Financial Officer), develop (1) a DOD-wide systematic approach for the periodic updating of initial closure savings estimates and (2) an oversight mechanism to ensure that the military services and components update such estimates in accordance with the prescribed approach. While DOD has stated its intent to do so, it has not acted on this recommendation.

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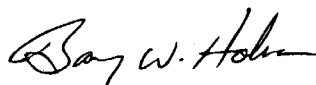
## Agency Comments

The Deputy Under Secretary of Defense (Installations and Environment) provided technical comments on a draft of this report that were incorporated as appropriate. DOD concurred with the need to improve the department's procedures for accounting for savings from the 2005 BRAC round, as we had previously recommended in our April 2002 report. DOD's comments are included in this report as appendix V.

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We are sending copies of this report to interested congressional committees; the Secretaries of Defense, Army, Navy, and Air Force; and the Director, Office of Management and Budget. We will also make copies available to others upon request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

Please contact me at (202) 512-8412, or my Assistant Director, James Reifsnyder, at (202) 512-4166 if you or your staff have any questions concerning this report. Key reports related to base closure implementation issues are listed in appendix VI. Staff acknowledgements are provided in appendix VII.



Barry W. Holman, Director  
Defense Capabilities and Management

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# Appendix I: Scope and Methodology

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To assess the reliability of data received from the Department of Defense (DOD), Department of Commerce, Department of Labor, and other federal agencies and used in this report, we reviewed available Inspector General and internal audit reports, internal reviews and studies, and contractor and consultant studies related to these databases. We also reviewed available reports of congressional hearings or copies of congressional testimony related to the data and summaries of ongoing or planned audits, reviews, and studies of the systems or the data and requested documentation related to quality practices inherent in the data systems, such as edit checks, data entry verification, and exception reports. Finally, we interviewed department and agency officials knowledgeable about their information systems to assess the reliability of those systems and the data they provide. Based on these steps and the steps discussed in the following paragraphs, we determined the data to be sufficiently reliable for the purposes of this report.

To determine DOD's progress in transferring unneeded base property to other users, we reviewed base realignment and closure (BRAC) property disposition plans and actual property transfers as of September 30, 2004, and compared them with similar data presented in our April 2002 report. We discussed property transfer reporting systems with each service to validate the reliability of the data reported to DOD. We also categorized the property disposition data into the various transfer methods (e.g., economic development conveyances) used to gain a sense of the predominant method being used. With regard to the untransferred acreage, we determined the primary impediments to property transfers by examining data for those former bases where unneeded BRAC property had not yet been transferred as of September 30, 2004. We also collected data and obtained the military services' views on the use of the so-called early transfer authority in which property can be transferred under certain conditions before an environmental cleanup remedy is in place. Furthermore, we collected and analyzed data on the use of no-cost economic development conveyances to transfer property and stimulate its reuse. Finally, because leasing is often used as an interim measure to make property available to users while awaiting property transfer, we collected and analyzed data related to leased property.

To determine the magnitude of the net savings from the four prior BRAC rounds, we reviewed DOD's annual BRAC budget submissions and interviewed BRAC and financial officials from the services and the Office of the Secretary of Defense. To ascertain the extent to which cost and savings estimates have changed over time, we compared the data contained in DOD's fiscal year 2005 BRAC budget submission and related

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documentation with similar data in DOD's fiscal year 2002 submission, which was the latest budget documentation available when we produced our last update report in April 2002. Through this comparison, we identified where major changes had occurred in the various cost and savings categories within the BRAC account and interviewed DOD officials regarding the rationale for the changes. To gain a sense of the accuracy of the cost and savings estimates, we relied primarily on our prior BRAC reports and reviewed reports issued by the Congressional Budget Office, DOD, DOD Inspector General, and service audit agencies. We also reviewed the annual military service budget submissions for fiscal years 2002 through 2005 to determine how frequently changes were made to the cost and savings estimates. In assessing the completeness of the cost and savings data, we reviewed the component elements considered by DOD in formulating overall BRAC cost and savings estimates. Because DOD did not include in its estimates federal expenditures to provide economic assistance for communities and individuals affected by BRAC, we collected these data from the Department of Labor, the Federal Aviation Administration, the Department of Commerce (Economic Development Administration), and DOD's Office of Economic Adjustment. Also, we reviewed the cost estimates for environmental cleanup activities beyond fiscal year 2003 because they had the effect of reducing the expected annual recurring savings for the four rounds.

To assess the economic recovery of communities affected by the BRAC process, we assessed the same communities that we analyzed in our April 2002 report where more than 300 civilian jobs on military bases were eliminated during the prior rounds. We used unemployment and real per capita income growth rates as measures to analyze changes in the economic condition of communities over time and in relation to national averages. We used unemployment and real per capita income as key performance indicators because (1) DOD used these measures in its community economic impact analysis during the BRAC location selection process and (2) economists commonly use these measures in assessing the economic health of an area over time. While our assessment provides an overall picture of how these communities compare with the national averages, it does not necessarily isolate the condition, or the changes in that condition, that may be attributed to a specific BRAC action.

We performed our review from November 2003 through October 2004 in accordance with generally accepted government auditing standards.



# Appendix II: Civilian Jobs Lost and Created at Major BRAC Locations during the Prior Four BRAC Rounds

The closure or realignment of military bases creates job losses at these facilities, but subsequent redevelopment of the former bases' property provides opportunities for creating new jobs. The data presented in table 3 include civilian jobs lost and created at major base realignments and closures during the prior four BRAC rounds, as of October 31, 2003. The data do not include the job losses that may have occurred elsewhere in a community, nor do they capture jobs created from other economic activity in the area.

**Table 3: Civilian Jobs Lost and Created at Major BRAC Locations (as of October 31, 2003)**

Major base	BRAC round	Estimated jobs lost	Estimated jobs created	Recovery (percent)
Alameda Naval Air Station and Naval Aviation Depot, Calif.	1993	3,228	2,228	69
Barbers Point Naval Air Station, Hawaii	1993	618	33	5
Bayonne Military Ocean Terminal, N.J.	1995	2,015	477	24
Bergstrom Air Force Base, Tex.	1991	927	2,820	304
Carswell Air Force Base, Tex.	1991	869	630	72
Castle Air Force Base, Calif.	1991	1,149	2,183	190
Cecil Field Naval Air Station, Fla.	1993	995	1,125	113
Chanute Air Force Base, Ill.	1988	1,035	1,782	172
Charleston Naval Complex, S.C.	1993	6,272	3,339	53
Chase Field Naval Air Station, Tex.	1991	956	1,153	121
Eaker Air Force Base, Ark.	1991	777	493	63
El Toro Marine Corps Air Station, Calif.	1993	979	252	26
England Air Force Base, La.	1991	682	1,530	224
Fitzsimmons Army Medical Center, Colo.	1995	1,612	2,714	168
Ft. Benjamin Harrison, Ind.	1991	1,050	1,171	112
Ft. Devens, Mass.	1991	2,178	2,288	105
Ft. McClellan, Ala.	1995	2,156	1,058	49
Ft. Ord, Calif.	1991	2,835	2,020	71
Ft. Pickett, Va.	1995	245	309	126
Ft. Ritchie, Md.	1995	1,373	52	4
Ft. Sheridan, Ill.	1988	1,681	0	0
Gentile Air Force Station, Ohio	1993	2,804	1,515	54
George Air Force Base, Calif.	1988	506	1,383	273
Glenview Naval Air Station, Ill.	1993	389	3,262	839
Griffiss Air Force Base, N.Y.	1993	1,341	1,086	81
Grissom Air Force Base, Ind.	1991	792	1,003	127

**Appendix II: Civilian Jobs Lost and Created  
at Major BRAC Locations during the Prior  
Four BRAC Rounds**

<b>Major base</b>	<b>BRAC round</b>	<b>Estimated jobs lost</b>	<b>Estimated jobs created</b>	<b>Recovery (percent)</b>
Guam Naval Complex	1993	2,193	549	25
Homestead Air Force Base, Fla.	1993	136	622	457
Hunters Point Annex Naval Shipyard, Calif.	1991	93	1,495	1608
Indianapolis Naval Air Warfare Center, Ind.	1995	2,196	1,574	72
Jefferson Proving Ground, Ind.	1988	387	179	46
Kelly Air Force Base, Tex.	1995	10,912	5,108	47
K.I. Sawyer Air Force Base, Mich.	1993	788	1,088	138
Letterkenny Army Depot, Pa.	1995	2,512	704	28
Lexington Army Depot, Ky.	1988	1,131	1,072	95
Long Beach Naval Complex, Calif.	1991	4,487	200	4
Loring Air Force Base, Maine	1991	1,311	1,048	80
Louisville Naval Ordnance Station, Ky.	1995	1,435	737	51
Lowry Air Force Base, Colo.	1991	2,275	3,106	137
March Air Force Base, Calif.	1993	997	572	57
Mare Island Naval Shipyard, Calif.	1993	7,567	1,363	18
Mather Air Force Base, Calif.	1988	1,012	4,498	444
McClellan Air Force Base, Calif.	1995	8,828	3,823	43
Memphis Defense Distribution Depot, Tenn.	1995	1,289	1,036	80
Memphis Naval Air Station, Tenn.	1993	250	116	46
Myrtle Beach Air Force Base, S.C.	1991	784	838	107
New York (Staten Island) Naval Station, N.Y.	1993	1,001	0	0
Newark Air Force Base, Ohio	1993	1,760	944	54
Norton Air Force Base, Calif.	1988	2,133	2,022	95
Oakland Military Complex, Calif.	1993	2,834	659	23
Ogden Defense Distribution Depot, Utah	1995	1,105	611	55
Orlando Naval Training Center, Fla.	1993	1,105	1,631	148
Pease Air Force Base, N.H.	1988	400	5,124	1,281
Philadelphia Defense Distribution Supply Center, Pa.	1993	1,485	500	34
Philadelphia Naval Complex, Pa.	1988	8,119	2,732	34
Plattsburgh Air Force Base, N.Y.	1993	352	1,001	284
Presidio of San Francisco, Calif.	1988	3,150	1,087	35
Red River Army Depot, Tex.	1995	386	186	48
Reese Air Force Base, Tex.	1995	1,238	588	47
Sacramento Army Depot, Calif.	1991	3,164	1,700	54
San Diego Naval Training Center, Calif.	1993	402	71	18
Savanna Army Depot, Ill.	1995	436	126	29

**Appendix II: Civilian Jobs Lost and Created  
at Major BRAC Locations during the Prior  
Four BRAC Rounds**

<b>Major base</b>	<b>BRAC round</b>	<b>Estimated jobs lost</b>	<b>Estimated jobs created</b>	<b>Recovery (percent)</b>
Seneca Army Depot, N.Y.	1995	273	1,256	460
Sierra Army Depot, Calif.	1995	374	5	1
Stratford Army Engineering Plant, Conn.	1995	1,400	66	5
Tooele Army Depot, Utah	1993	1,942	844	43
Treasure Island Naval Station, Calif.	1993	454	382	84
Tustin Marine Corps Air Station, Calif.	1991	348	2	1
Vint Hill Farms Station, Va.	1993	1,472	800	54
Warminster Naval Air Warfare Center, Pa.	1991	2,311	767	33
Watertown AMTL, Mass.	1988	540	1,061	196
Williams Air Force Base, Ariz.	1991	728	2,519	346
Wurtsmith Air Force Base, Mich.	1991	690	603	87
<b>Total: 73 bases</b>		<b>129,649</b>	<b>92,921</b>	<b>72</b>

Source: DOD Office of Economic Adjustment.

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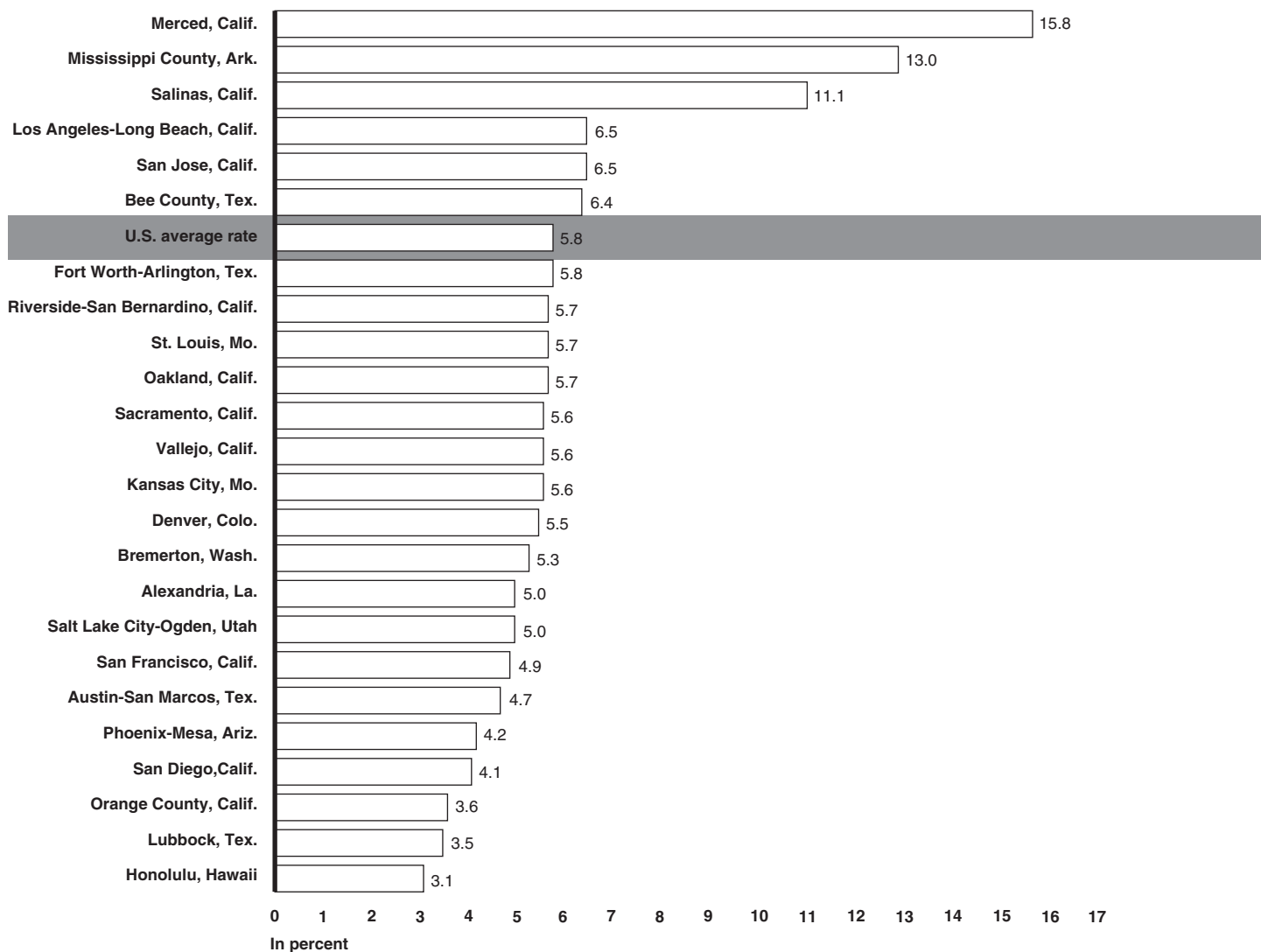
## Appendix III: Average Unemployment Rates of BRAC-Affected Areas Compared with the U.S. Average Rate

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As figure 9 shows, 18 (75 percent) of the 24 BRAC-affected localities situated west of the Mississippi River had unemployment rates equal to or less than the U.S. average rate of 5.8 percent during January through July 2004. The other 6 locations had unemployment rates greater than the U.S. rate.

**Appendix III: Average Unemployment Rates  
of BRAC-Affected Areas Compared with the  
U.S. Average Rate**

**Figure 9: Comparison of 2004 Unemployment Rates of 24 BRAC-Affected Locations West of the Mississippi River with the U.S. Rate**



Source: GAO's analysis of the Department of Labor's data.

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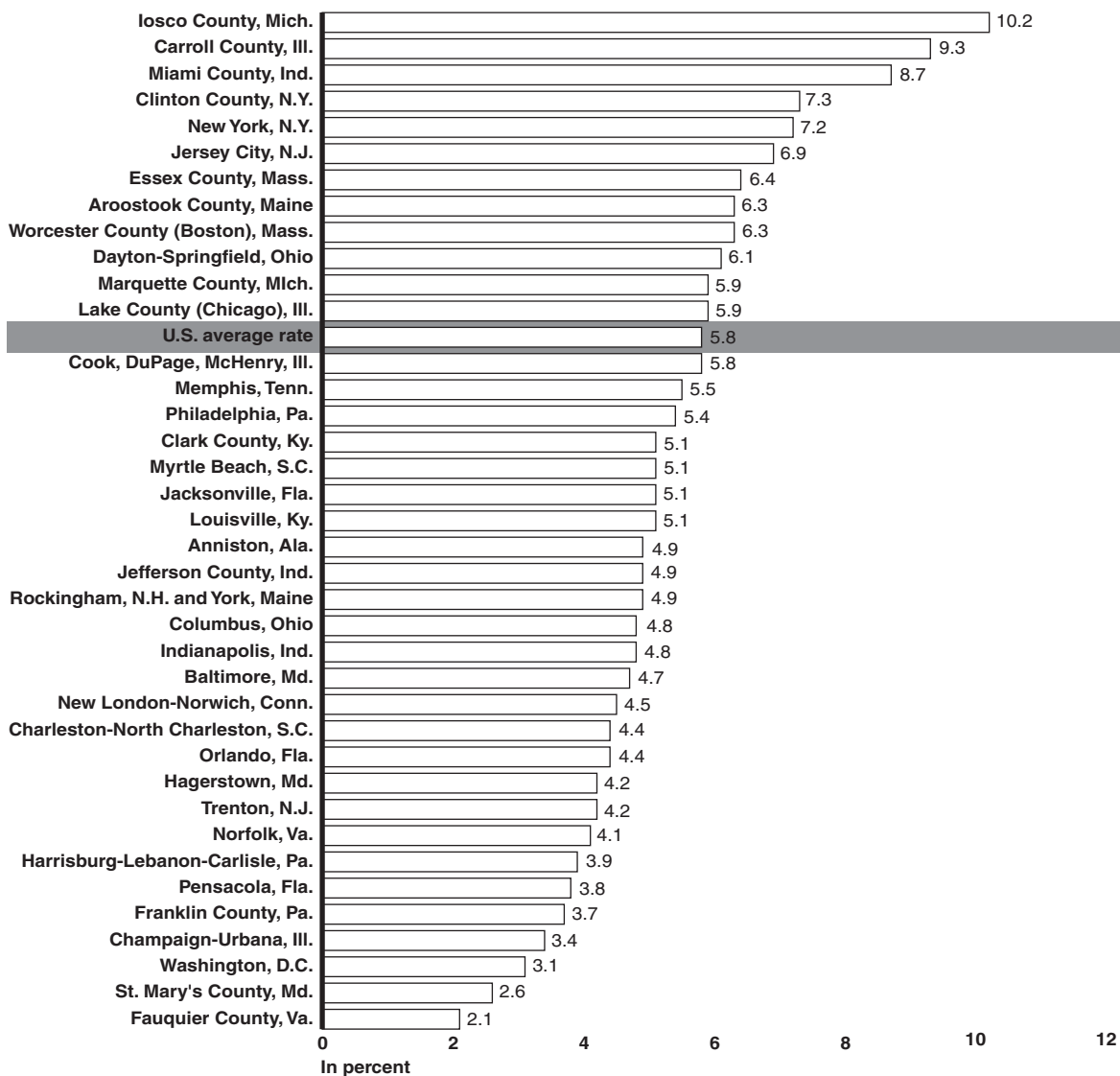
**Appendix III: Average Unemployment Rates  
of BRAC-Affected Areas Compared with the  
U.S. Average Rate**

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As figure 10 shows, 26 (66 percent) of the 38 BRAC-affected localities situated east of the Mississippi River had unemployment rates that were less than or equal to the U.S. rate of 5.8 percent during January through July 2004. The other 12 locations had unemployment rates that were greater than the U.S. rate.

Appendix III: Average Unemployment Rates  
of BRAC-Affected Areas Compared with the  
U.S. Average Rate

Figure 10: Comparison of 2004 Unemployment Rates of 38 BRAC-Affected Locations East of the Mississippi River with the U.S. Rate



Source: GAO's analysis of the Department of Labor's data.

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## Appendix IV: Average Annual Real Per Capita Income Growth Rates of BRAC-Affected Areas Compared with the U.S. Average Rate

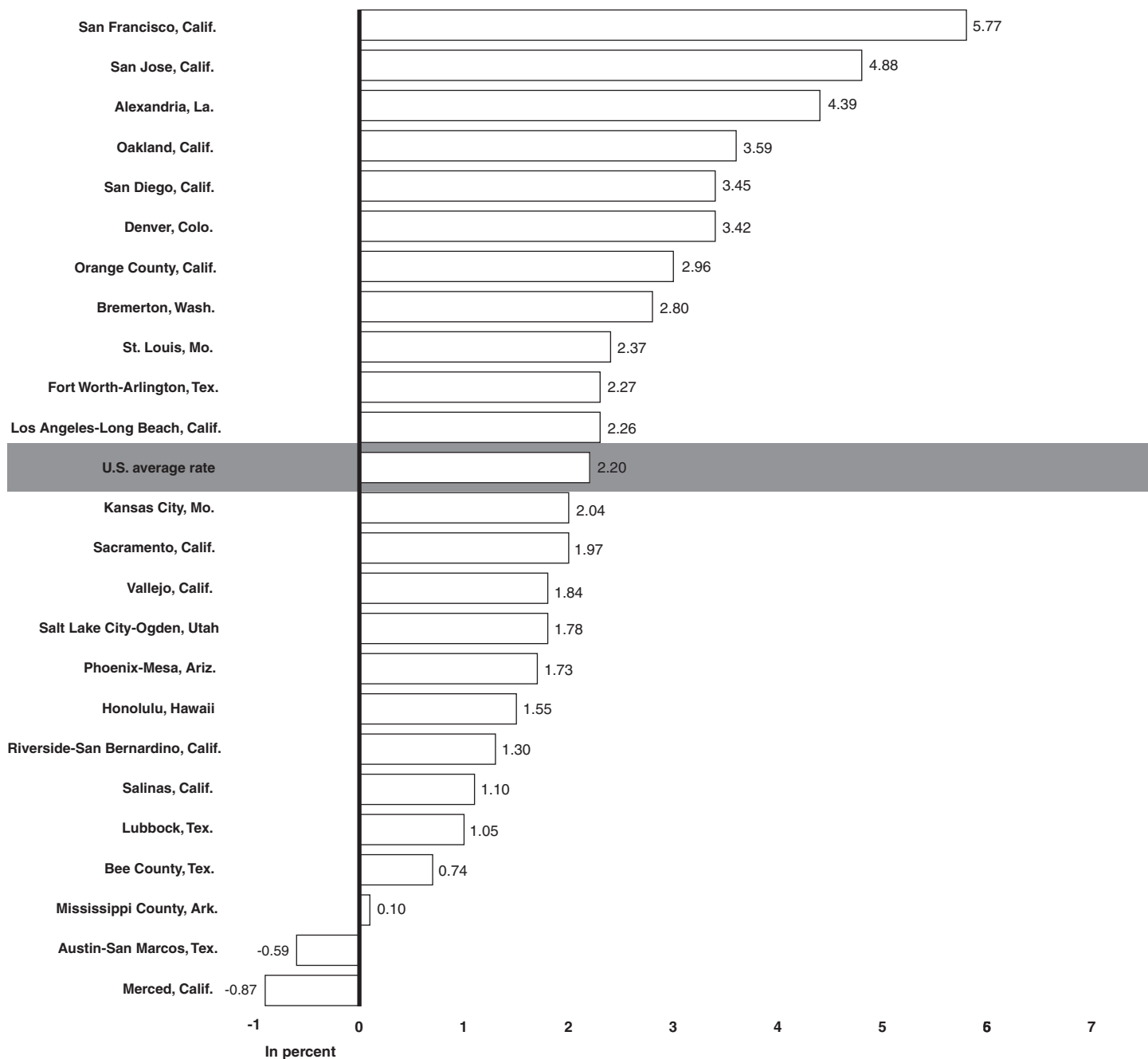
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As figure 11 shows, 11 (46 percent) of the 24 BRAC-affected localities situated west of the Mississippi River had average annual real per capita income growth rates that were greater than the U.S. average growth rate of 2.2 percent during 1999 through 2001. The other 13 locations had rates that were below the U.S. average rate, of which 2 locations experienced a negative growth rate.



Appendix IV: Average Annual Real Per Capita  
Income Growth Rates of BRAC-Affected Areas  
Compared with the U.S. Average Rate

Figure 11: Comparison of Average Annual Real Per Capita Income Growth Rates of 24 BRAC-Affected Locations West of the Mississippi River with the U.S. Rate (1999-2001)

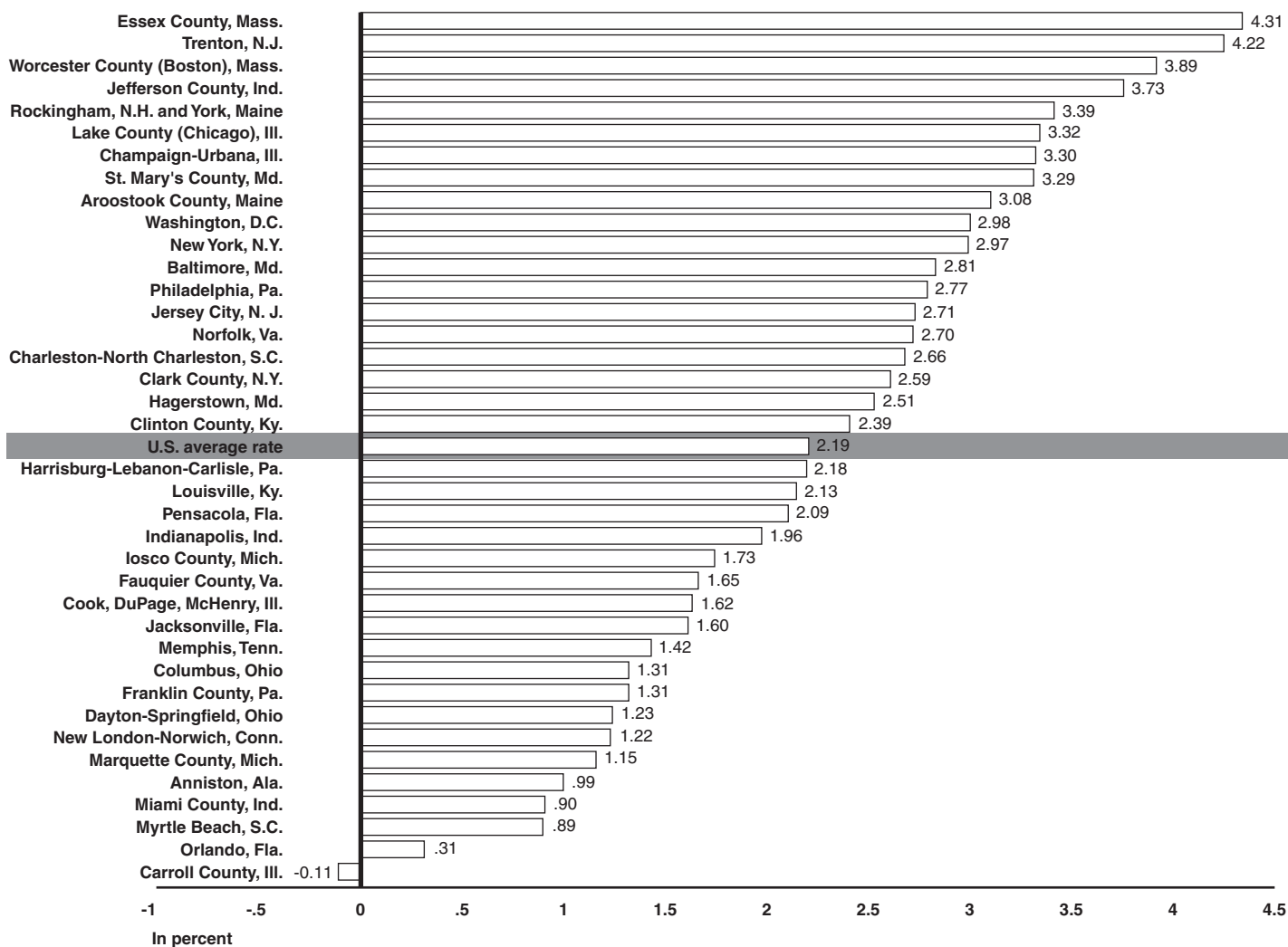


Source: GAO's analysis of the Department of Commerce's data.

**Appendix IV: Average Annual Real Per Capita  
Income Growth Rates of BRAC-Affected Areas  
Compared with the U.S. Average Rate**

As figure 12 shows, 19 (50 percent) of the 38 BRAC-affected localities situated east of the Mississippi River had average annual real per capita income growth rates that were greater than the U.S. average growth rate during 1999-2001. The other 19 locations had rates that were below the U.S. average rate, of which 1 had a negative growth rate.

**Figure 12: Comparison of Average Annual Real Per Capita Income Growth Rates of 38 BRAC-Affected Locations East of the Mississippi River with the U.S. Rate (1999-2001)**



Source: GAO's analysis of the Department of Commerce's data.

# Appendix V: Comments from the Department of Defense



ACQUISITION  
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OFFICE OF THE UNDER SECRETARY OF DEFENSE  
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WASHINGTON, DC 20301-3000

JAN 03 2005

Mr. Barry Holman  
Defense Capabilities and Management  
U.S. Government Accountability Office  
441 G Street, N.W.  
Washington, D.C. 20548

Dear Mr. Holman,

This is the Department of Defense response to the GAO draft report, GAO-05-138, "MILITARY BASE CLOSURES: Updated Status of Prior Base Realignments and Closures," dated November 19, 2004 (GAO Code 350441).

The Department previously provided technical corrections for this report to your staff the week of November 29, 2004. The GAO offered no new recommendations in this draft report. However, as stated in its response to your April 2002 report on the same topic, the Department intends to establish a more effective system for updating savings estimates for the 2005 Base Realignment and Closure round.

The Department appreciates the opportunity to comment on the draft report.

Sincerely,

Philip W. Grone  
Deputy Under Secretary of Defense  
(Installations and Environment)



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# Appendix VI: Key Prior GAO Reports on DOD's Base Realignment and Closures

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*Military Base Closures: Assessment of DOD's 2004 Report on the Need for a Base Realignment and Closure Round.* [GAO-04-760](#). Washington, D.C.: May 17, 2004.

*Military Base Closures: Observations on Preparations for the Upcoming Base Realignment and Closure Round.* [GAO-04-558T](#). Washington, D.C.: March 25, 2004.

*Military Base Closures: Better Planning Needed for Future Reserve Enclaves.* [GAO-03-723](#). Washington, D.C.: June 27, 2003.

*Military Base Closures: Progress in Completing Actions from Prior Realignments and Closures.* [GAO-02-433](#). Washington, D.C.: April 5, 2002.

*Military Base Closures: DOD's Updated Net Savings Estimate Remains Substantial.* [GAO-01-971](#). Washington, D.C.: July 31, 2001.

*Military Bases: Status of Prior Base Realignment and Closure Rounds.* [GAO/NSIAD-99-36](#). Washington, D.C.: December 11, 1998.

*Military Bases: Review of DOD's 1998 Report on Base Realignment and Closure.* [GAO/NSIAD-99-17](#). Washington, D.C.: November 13, 1998.

*Military Bases: Lessons Learned from Prior Base Closure Rounds.* [GAO/NSIAD-97-151](#). Washington, D.C.: July 25, 1997.

*Military Bases: Closure and Realignment Savings Are Significant, but Not Easily Quantified.* [GAO/NSIAD-96-67](#). Washington, D.C.: April 8, 1996.

*Military Bases: Analysis of DOD's 1995 Process and Recommendations for Closure and Realignment.* [GAO/NSIAD-95-133](#). Washington, D.C.: April 14, 1995.

*Military Bases: Analysis of DOD's Recommendations and Selection Process for Closures and Realignments.* [GAO/NSIAD-93-173](#). Washington, D.C.: April 15, 1993.

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*Military Bases: Observations on the Analyses Supporting Proposed Closures and Realignments.* [GAO/NSIAD-91-224](#). Washington, D.C.: May 15, 1991.

*Military Bases: An Analysis of the Commission's Realignment and Closure Recommendations.* [GAO/NSIAD-90-42](#). Washington, D.C.: November 29, 1989.

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# Appendix VII: GAO Contact and Staff Acknowledgments

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## GAO Contact

James R. Reifsnyder (202) 512-4166

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## Acknowledgments

In addition to the individual named above, Nancy Benco, Paul Gvoth, Warren Lowman, Tom Mahalek, Dave Mayfield, Charles Perdue, Stephanie Stokes, and Dale Weinholt made key contributions to this report.

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